

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (original): A method of detecting suspected anomalous shadows, comprising the steps of

obtaining radiation-image data representing a radiation image obtained of a target subject by an image obtaining means,

detecting, based on said obtained radiation image data, the suspected anomalous shadows contained within said radiation image by performing an anomalous shadow detection process utilizing a predetermined detection parameter, further comprising the steps of

obtaining phantom-image data representing a radiation image obtained by said radiation image obtaining means of a standard phantom having a shadow pattern formed of a plurality of evaluative models each of which corresponds to a different detection level,

outputting said obtained phantom image data by use of an output means, and

setting as the value of the detection parameter a threshold value obtained by performing an image quality evaluation based on the phantom-image data outputted by the output means.

2. (original): A method of detecting suspected anomalous shadows as defined in claim 1, wherein the target subject is a breast.

3. (original): A system for detecting suspected anomalous shadows, comprising image obtaining means for obtaining a radiation image of a target subject,

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radiation-image data obtaining means for obtaining radiation-image data representing the radiation image obtained by said image obtaining means of the target subject,

an anomalous shadow detecting means for detecting, based on the radiation-image data obtained by the radiation image data obtaining means, suspected anomalous shadows contained within the radiation image by performing an anomalous shadow detection process utilizing a predetermined detection parameter, wherein

 said anomalous shadow detecting means determines, based on a phantom-image data representing a standard phantom-image having at least one type of anomalous shadow pattern formed of a plurality of evaluative models each of which corresponds to a different detection capability level, a threshold value facilitating the detection and obtainment of an evaluative model corresponding to a desired detection capability level,

 and automatically sets the value of the detection parameter based on said threshold value.

4. (original): A system for detecting suspected anomalous shadows as defined in claim 3, wherein

 at least one of the patterns of anomalous shadows contained in the standard phantom is the pattern of the shadows of tumors.

5. (original): A system for detecting suspected anomalous shadows as defined in claim 3, wherein

 at least one of the patterns of anomalous shadows contained in the standard phantom is the pattern of the shadows of microcalcifications.

6. (original): A system for detecting suspected anomalous shadows as defined in any one of claims 3, 4, or 5, wherein

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said suspected anomalous shadow detection process comprises an iris filtering process for detecting tumors, and/or a morphology filtering process for detecting microcalcifications.

7. (currently amended): A system for detecting suspected anomalous shadows, comprising

image obtaining means for obtaining a radiation image of a target subject, radiation-image data obtaining means for obtaining radiation data representing the radiation image obtained by said image obtaining means of the target subject,

an anomalous shadow detecting means for detecting, based on the radiation-image data obtained by the radiation image data obtaining means, suspected anomalous shadows contained within the radiation image by performing an anomalous shadow detection process utilizing a predetermined detection parameter, further comprising

a parameter setting means for automatically setting, based on the radiation-image data of a predetermined standard phantom or an image without specifying a target subject that has been obtained by the radiation-image data obtaining means from a radiation image obtained thereof by the image obtaining means, the value of the detection parameter.

8. (original): A system for detecting suspected anomalous shadows as defined in claim 7, wherein

the parameter setting means computes a granularity correction value, based on the granularity of the radiation-image data of the predetermined target subject, and sets the value for the detection parameter based on said granularity correction value.

9. (original): A system for detecting suspected anomalous shadows as defined in claim 7 or 8, wherein

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the parameter setting means computes a contrast correction value, based on the granularity of the radiation-image data of the predetermined target subject, and sets the value for the detection parameter based on said contrast correction value.

10. (original): A system for detecting suspected anomalous shadows as defined in claim 7 or 8, wherein

the predetermined target subject is a standard phantom having a pattern of anomalous shadows formed of a plurality of evaluative models each of which corresponds to a different detection capability level.

11. (original): A system for detecting suspected anomalous shadows as defined in claim 9, wherein

the predetermined target subject is a standard phantom having a pattern of anomalous shadows formed of a plurality of evaluative models each of which corresponds to a different detection capability level.

12. (new): A method of detecting suspected anomalous shadows as defined in claim 1, wherein the standard phantom comprises a test object simulating tissue.

13. (new): A method of detecting suspected anomalous shadows as defined in claim 1, wherein the standard phantom comprises a test object simulating radiographic characteristics of compressed tissue.

14. (new): A method of detecting suspected anomalous shadows as defined in claim 1, wherein the standard phantom includes one of:

- i) at least one of a plurality of fibers, a plurality of specks, and a plurality of masses and

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ii) a surface texture pattern having a plurality of contrast gradations.

15. (new): A system for detecting suspected anomalous shadow as defined in claim 3,
wherein the standard phantom comprises a test object simulating tissue.

16. (new): A system of detecting suspected anomalous shadows as defined in claim 1,
wherein the target subject is a standard phantom comprising a test object simulating tissue.

17. (new): A system of detecting suspected anomalous shadows as defined in claim 1,
wherein the plurality of evaluative models comprise a plurality of regular geometric figures.

18. (new): A system of detecting suspected anomalous shadows as defined in claim 17,
wherein the regular geometric figures are arranged in a regular pattern.